

(19) World Intellectual Property
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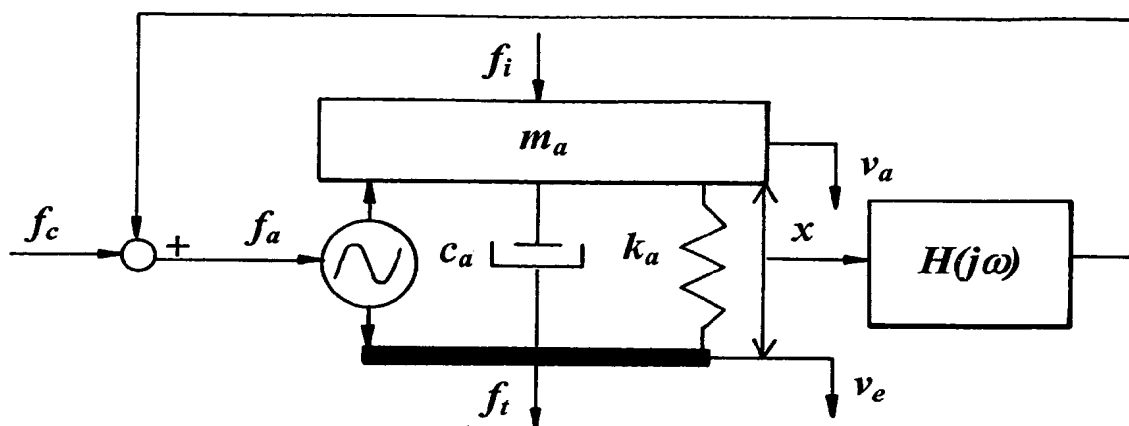
(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059397 A1

- (51) International Patent Classification⁷: **F16F 7/10**
- (21) International Application Number:
PCT/GB2004/005216
- (22) International Filing Date:
14 December 2004 (14.12.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0329206.7 17 December 2003 (17.12.2003) GB
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INERTIAL ACTUATOR



(57) Abstract: An inertial actuator assembly comprises an actuator chassis adapted to be secured in use to a structure subject in use to external vibration forces, a proof mass (m_a) supported with respect to the chassis by a proof mass resilient means, and a force generating transducer means acting between the chassis and the proof mass for subjecting in use the proof mass to a force (f_a) applied relative to the chassis, a controller arranged to control in use the excitation of the transducer means, wherein the assembly comprises a feedback means $H(j\omega)$ responsive to a measurement of the displacement (x) of the proof mass relative to the chassis, the controller being arranged to modify the excitation of the force generating transducer means in response to a feedback signal from the feedback means. The feedback signal may be proportional to the displacement, the integral of the displacement, the derivative of the displacement, or to any combination of these.

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